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Ag84L

Design No. 3



Beltsville

ENERGY-SAVING KITCHEN

This is the third energy-saving kitchen designed and tested by housing specialists of the U.S. Department of Agriculture for the working convenience of the homemaker. It is carefully planned to reduce walking, stooping, lifting, and reaching in meal preparation and other kitchen activities.

Three arrangements of cabinets and equipment are presented. For a detailed layout of arrangements A, B, and C, turn to pages 2 and 3. Records of the distance walked in preparing, serving, and cleanup of identical meals in arrangements A, B, and C showed very little difference. Each arrangement is efficient and well suited to family use.

The distinctive feature of this kitchen is its use of slant-front, wall-hung cabinets. The bottom shelf of these cabinets is $5\frac{1}{2}$ inches deep and the top shelf is $9\frac{1}{2}$ inches deep, which makes the face of the cabinets extend farther out over the counters at the top than at the bottom. The mix and range cabinets and the other wall storage cabinet are hung only 4 inches above the surface counter instead of the customary 15 or 18 inches.

Thus the wall cabinets in this kitchen are designed to limit both the height of the reach and the extent of the reachover. Both of these factors have been found to affect the amount of energy required to place and remove articles from shelves. The height of the top shelf in the mix cabinet, for example, is 65 inches, within easy reach from a sitting position.

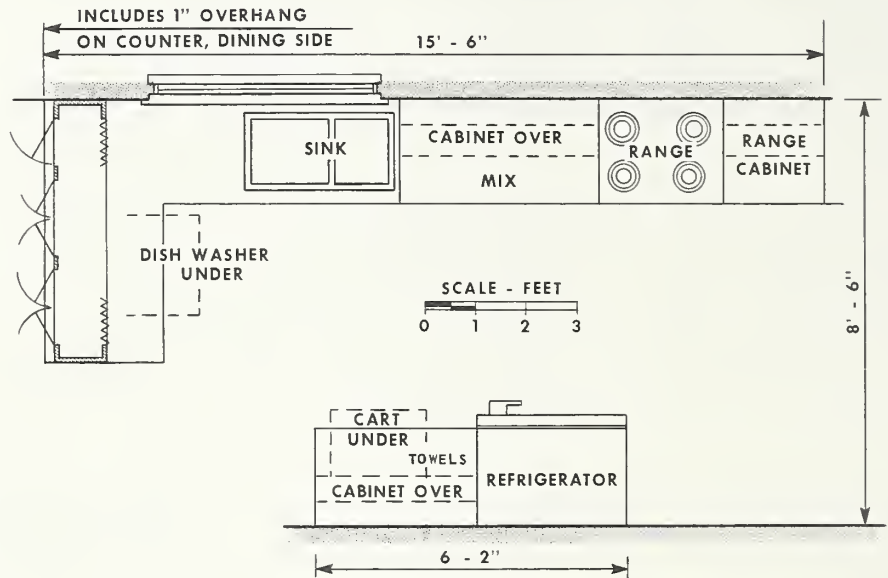
Other convenience features of the kitchen include: A hardwood cutting board, a trash container compartment, two pullout workboards, a pullout towel rod, an adjustable posture chair, and a two-shelf serving cart. Storage places for the chair and cart are provided in all arrangements.

Vertical shade-type closures for the wall and dish cabinets permit the entire storage area to be open when work is in progress, and are neat and attractive when closed. Directions for installing this type of closures are given on page 7.

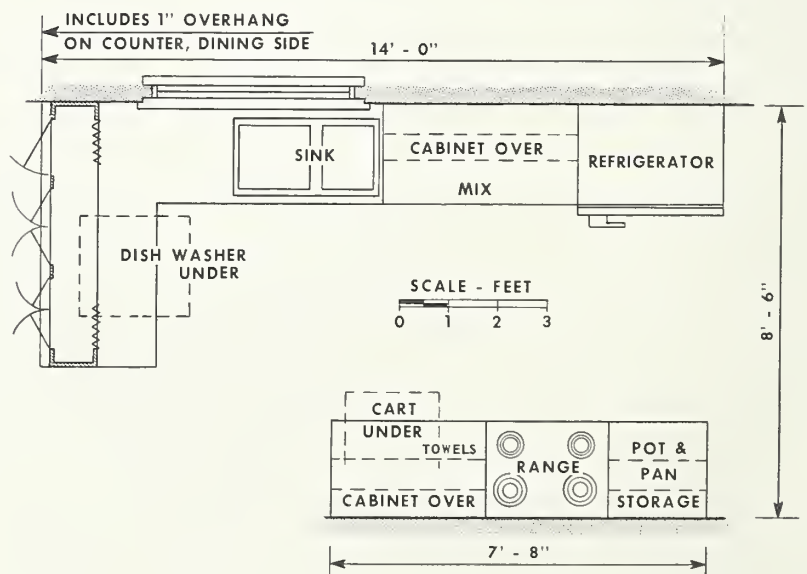
No detailed working drawings of this kitchen have been prepared for distribution. However, the dimensioned sketches of its principal features included in this publication will be helpful to your carpenter or cabinetmaker.

THREE CHOICES

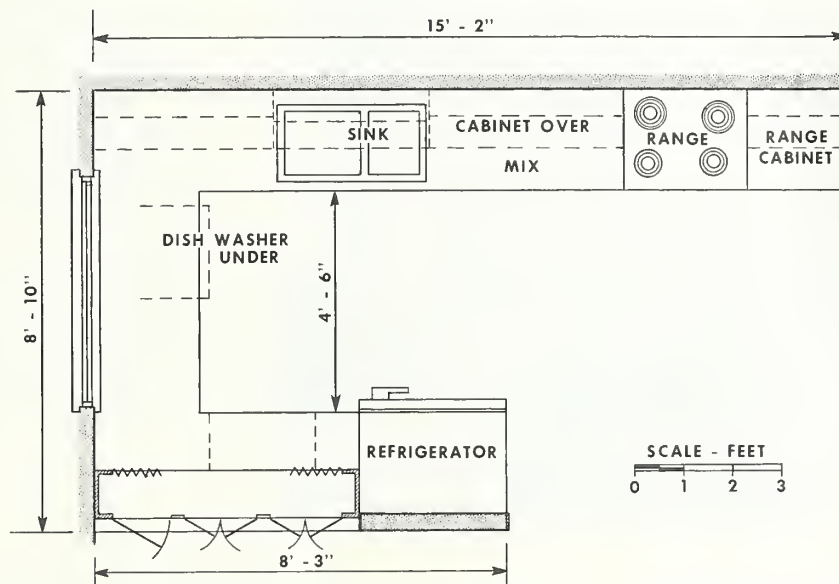
Arrangement A



Arrangement B



Arrangement C



You have a choice of three convenient arrangements for the cabinets and equipment. (See sketches A, B, and C.) Arrangements A and B are broken-U areas; arrangement C, an unbroken-U area. Arrangement C, the largest of the three areas, has more counter space than either A or B, but there is enough space for two persons to work comfortably at the same time in any of the three arrangements.

The sink and dishwasher are located in the same position in the three arrangements, but the placement of the refrigerator and range varies.

Arrangement A places the refrigerator across from the mix center with a 36-inch wide counter and cabinet to the right. In B, the refrigerator is at the right end of the mix counter, and the mix counter is a holding space for food from the refrigerator.

In C, the refrigerator is across from the mix center and next to the dish cabinet. The counter top in front of the dish cabinet is holding space in this arrangement.

In A and C, the 30-inch free standing range is placed to the right of the mix center, and a 24-inch-wide counter and cabinet to the right of the range. In B, the range is placed across from the mix center, the 2-foot counter and cabinet is to its left; and the third storage cabinet—the one used to store refrigerator supplies and the serving cart—is to the right of the range.

In each arrangement the dining area is partially separated from the kitchen proper by the dish storage cabinet. In A and B, the dish cabinet is to the left and at right angles to the sink; in C, the dish cabinet is across from the sink.

In A and B, the corner base area under the dish cabinet has pullout shelves on the dining area side. See sketch on page 8.

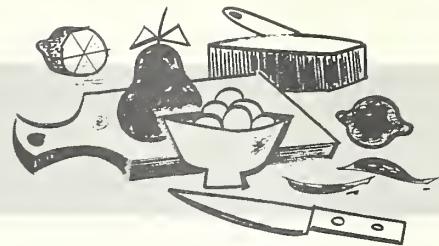
A pullout towel rod is installed to the left of the dishwasher and under the two silverware drawers in A and B. In C, the drawers and rod are under the dish cabinet.

A hardwood cutting board that fits over the shallow bowl of the sink is stored under it in a specially designed holder that allows the homemaker to remove and use the board when sitting at the sink. (See photo and sketch of board and holder on page 5.)

The space under the deep bowl of the sink is used for a trash container. Trash can be thrown into the container through a chute-type, hinged door. (See photo and sketch of chute and trash container compartment on page 5.)



X CENTERS



The top drawer in the base cabinet to the left of the sink stores saucepans, colander, and strainer; the second drawer, potatoes and onions; and the third drawer, reserve supplies.

The mix center consists of a 48-inch-wide counter, a wall cabinet, and a base cabinet. (See drawings at bottom of page 4.)

Package supplies, seasonings, flavorings, and mixing and baking utensils used here are stored on the four shelves of the wall cabinet. The shelves are adjustable to some extent.

The top shelf of the mix cabinet is fitted with aluminum wire loops that serve as easy-to-clean pan dividers. (See page 6 for detailed plan of pan dividers on this shelf.)

The base cabinet of the mix center has two banks

of drawers with space between for sitting and for storing the posture chair when it is not in use. A pullout board under the center of the counter may be placed at any of three working heights.

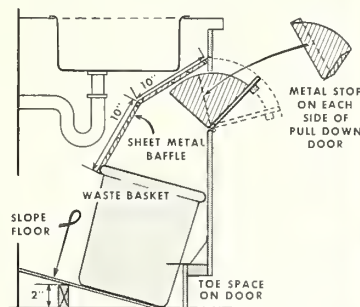
Three of the drawers to the left of the sit-down space store mixing tools, saucepans, and a hand mixer, the only mixer provided in this kitchen. The bottom drawer is reserved for large and infrequently used items.

The top right drawer holds additional mixing tools. The second drawer is divided into two metal-lined compartments with sliding tops—one compartment holds 20 pounds of flour, the other, 10 pounds of sugar. The deep bottom drawer is convenient for filing cooky sheets, flat baking pans, and large platters.

DETAILS

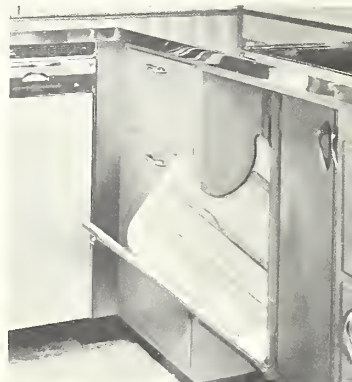
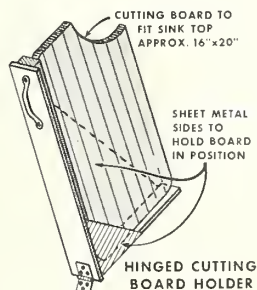
Trash Chute and Container

The trash chute and trash container, at right, fit in cabinet under the deep bowl of the sink. The inside of the cabinet is lined with metal baffle to direct trash. The cabinet floor slopes slightly to align the trash container with the chute. The toe space is attached to the door of the cabinet to facilitate the removal of the container for emptying.



Cutting Board Storage

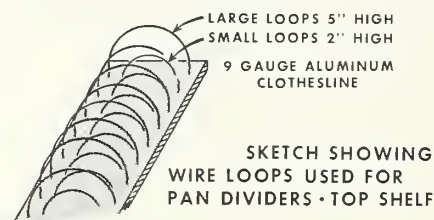
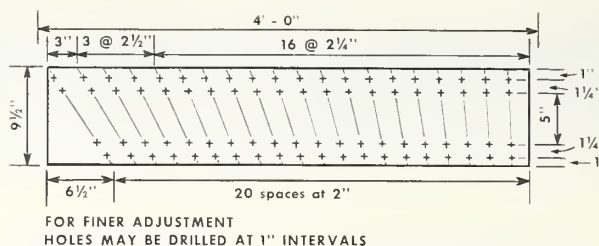
The hardwood cutting board, shown in sketch and photo at right, fits over the shallow bowl of the sink. It is stored in a holder that is hinged to the bottom of the base cabinet. Sheet metal is attached to the sides of the holder to keep board in place when stored. The board measures approximately 16 by 22 inches.



Pan Dividers on Top Mix Shelf

The plan at right shows spacing of holes at 2-inch intervals for aluminum wire loops used as pan dividers on top shelf of mix cabinet. Holes may be drilled at 1-inch instead of 2-inch intervals for a finer adjustment.

The sketch at right shows how wire loops, 2 inches and 5 inches high, are inserted into holes in shelf to separate and hold pans in place. Note the angle at which the wires are placed to permit the storage of larger pans and to facilitate the removal of pans from the shelf. Aluminum wire does not rust or require painting.



PLAN OF TOP SHELF SHOWING HOLE SPACING

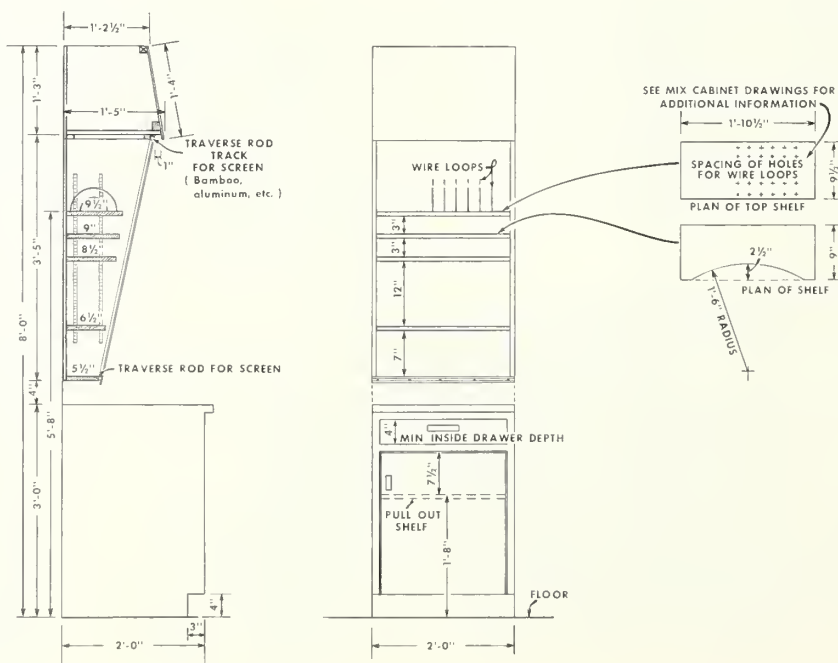
RANGE CABINET

A 24-inch-wide counter, a wall cabinet, and a base cabinet are provided next to the range in all arrangements. (See sketch below.)

The wall cabinet has five shelves for the storage of range supplies and serving dishes. The base cabinet is shown with a shallow drawer for potholders and range tools, and a pullout shelf for storing frying

pans and griddles. You can add a second pullout shelf at the bottom of the base cabinet to make this space more convenient for storage of utensils.

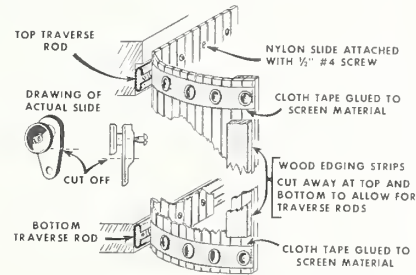
A part of the top shelf of the wall cabinet is fitted with pan dividers like those used on the top mix shelf. (For details see sketches below and at top of this page.)



Method Used To Attach Cabinet Closures

Measure length and width of cabinet front. Cut closure material the same length and $1\frac{1}{4}$ times the width of the cabinet front. Closures on cabinets more than 24 inches wide should be made in two pieces that fasten on the sides of the opening and meet in the center. In such cases, cut each piece of the closure the same length and five-eighths the width of the cabinet. Glue twill tape to top and bottom of closure. Cut off nylon traverse rod slides (see sketch at right). Use only the button end of slide. Drill hole in shaft to take a No. 8 ($\frac{1}{4}$ -inch) round head screw. Attach slides to top and bottom of closure at 4-inch intervals, making certain that slides line up at top and bottom.

Attach edging strip at each side of closure. Mount traverse rods at top and bottom of cabinet and attach cabinet closures. (See sketch below for details.)



METHOD USED TO ATTACH CABINET CLOSURES

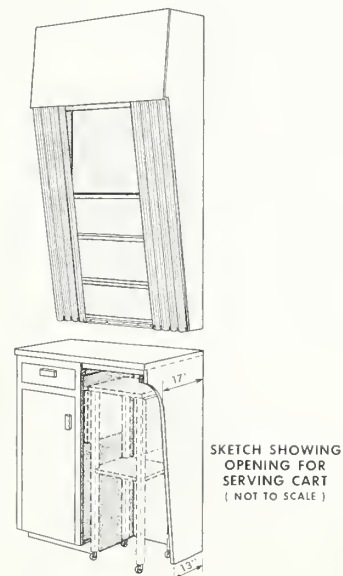
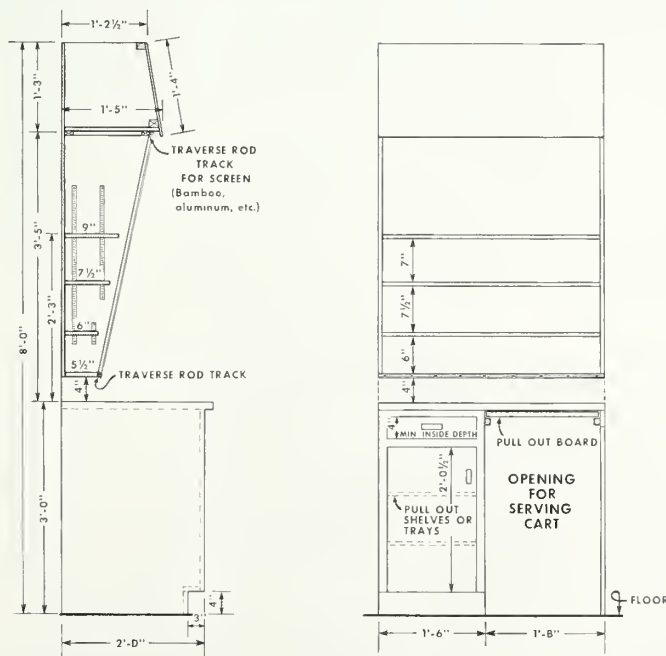
OTHER STORAGE CABINET

All kitchen arrangements also include a wall cabinet for refrigerator and salad supplies. The four shelves of this cabinet store refrigerator dishes, salad bowls, salad seasonings, oil and vinegar, casseroles, and canned food. (See sketch below.)

In arrangement A, this wall cabinet is next to the refrigerator. Under the cabinet is a 36-inch-wide counter. The base cabinet has a section of drawers

for kitchen towels and plastic bags; it also has a pull-out cutting board and space for storing a serving cart. (See sketch below.)

In B, both the wall and the base cabinet are placed to the right of the range. In C, the wall cabinet is placed to the left of the sink, the linen drawers are in the base cabinet to the left of the dishwasher, and the cart is stored under the dish cabinet.



SKETCH SHOWING
OPENING FOR
SERVING CART
(NOT TO SCALE)

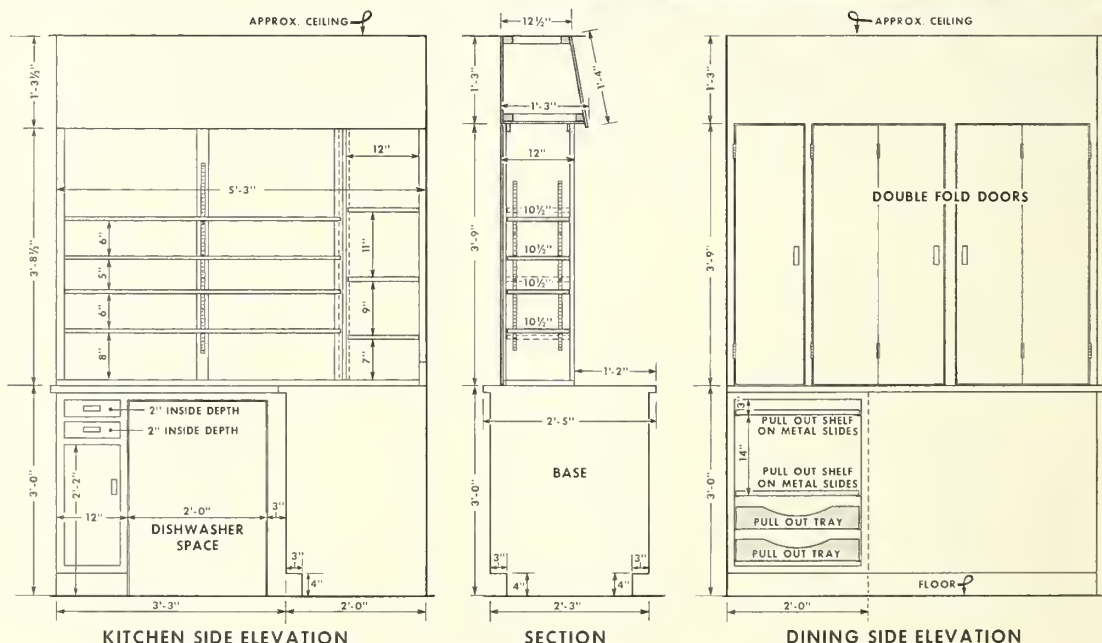
DISH CABINET

The dish cabinet is made in two sections—a wide section to the left for china and glassware, and a narrow section to the right for foods such as crackers, spreads, and ready-to-eat cereals.

Shelves in the pass-through dish cabinet extend to counter level so that heavy items, such as dinner plates, can be stored at an energy-saving height. The top shelf is only 68 inches from the floor—a comfortable reach for placing and removing lightweight articles with one hand. The base cabinet includes two shallow drawers for silver, and a pullout towel rod. (See sketches below.)

The dish cabinet has double-fold wood doors opening to the dining area so that the table can be set without interfering with meal preparation. Pullout shelves, accessible only on the dining side, store table appointments and small appliances.

In all arrangements, the dish storage cabinet and dishwasher are placed close together so that dishes can be stored at the place of first and last use.



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